

**In the Claims:**

*Please delete the heading “Claims” and insert --What is Claimed is:-- therefor.*

*Please amend the claims as follows:*

1. (currently amended) ~~Apparatus~~ An apparatus for detecting an object, the apparatus comprising:
  - a light source adapted to emit a beam of light at wavelengths absorbed by the object or a coating thereon;
  - a detector adapted to detect light at wavelengths fluoresced by the object or coating thereon;
  - a processor adapted to determine the presence of an object from the light detected by the detector; and
  - an oscillator to modulate the light source;wherein the processor includes a mixer, which receives the modulation signal from the oscillator, and a signal from the detector.
2. (currently amended) ~~Apparatus~~ The apparatus as claimed in claim ~~[[2]]~~ 1, further including a driver circuit.
3. (currently amended) ~~Apparatus~~ The apparatus as claimed in ~~claim 1 or~~ claim 2, wherein the processor further includes a low-pass filter which is adapted to pass signals of a significant magnitude if a coherent signal averaged over time is present.
4. (currently amended) ~~Apparatus~~ The apparatus as claimed in claim 3, wherein the processor further includes a threshold detector, which compares the signal from the low-pass filter with a predetermined threshold, and sends a signal to an indicator ~~[[is]]~~ if the signal exceeds the threshold, to indicate the presence of a ball.

5. (currently amended) ~~Apparatus~~ The apparatus as claimed in claim 1, wherein the modulation will be in the frequency range 10 Hz to 100MHz.
6. (currently amended) A method for locating lost objects, the objects having a coating which absorbs light at one wavelength, and fluoresces at a second wavelength; the method consisting in the steps of:
- providing a bead of light having a wavelength absorbed by the coating on the object;
  - detecting light of wavelengths fluoresced by the object to be located; and
  - determining from the light detected the presence or otherwise of the object.
7. (new) The apparatus as claimed in claim 1, wherein the processor further includes a low-pass filter which is adapted to pass signals of a significant magnitude if a coherent signal averaged over time is present.
8. (new) The apparatus as claimed in claim 7, wherein the processor further includes a threshold detector, which compares the signal from the low-pass filter with a predetermined threshold, and sends a signal to an indicator if the signal exceeds the threshold, to indicate the presence of a ball.